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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
HECK, MICHAEL C	

ART UNIT	PAPER NUMBER
3623	

DATE MAILED: 04/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/712,438	FOELL ET AL.	
	Examiner	Art Unit	
	Michael C. Heck	3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 January 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 November 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This Final Office Action is responsive to applicant's amendment filed 28 January 2005. Applicant amended claim 1. Currently, claims 1-33 are pending.

Response to Amendment

2. The objection to the Drawings in the First Office Action is withdrawn in response to the applicant's amendment to the Specification.

3. The objection to the Abstract in the First Office Action is withdrawn in response to the applicant's amendment to the Abstract.

4. The objection to the Specification in the First Office Action is withdrawn in response to the applicant's amendment to the Specification.

5. The 35 U.S.C. § 101 rejection in the First Office Action for claims 1-12 are withdrawn in response to the applicant's amendment to claim 1.

Response to Arguments

6. Applicant's arguments filed 28 January 2005 have been fully considered but they are not persuasive. Applicant asserts the definitions used by the Examiner are based on an inaccurate definition of the claimed subject matter. Specifically, the applicant is claiming a method and system for calculating a number of working hours available for performance of the multiple projects, where the multiple projects are mandatory projects, ad hoc projects, and non-mandatory projects. The applicant in the Amendment dated 28 January correlated the mandatory type project to projects such as

a software core release or other planned production content that has a generally fixed schedule. Non-mandatory projects are projects that are considered for completion after the necessary resources are allocated for the mandatory projects. The applicant further asserts the disclosure does not provide for precedence feasible projects as discussed in Ash (Ash, Activity Scheduling in the Dynamic, Multi-Project Setting: Choosing Heuristics Through Deterministic Simulation, Proceedings of the 1999 Winter Simulation Conference, 1999, p. 937-941 [GOOGLE]).

In response, during patent examination, the pending claims must be given their broadest reasonable interpretation consistent with the specification (MPEP § 2111). In the specification the applicant asserts the invention provides a project planning and management system and method that accommodates multiple modes of product development and production. The applicant identifies production as fixed or planned production and variable production, where planned production content refers to production of products having a generally fixed time schedule, and variable production content refers to specific or custom requests for products that tend to arise on an irregular or intermittent basis (pp. 4, lines 13-24). The applicant further indicates that mandatory and opportunity or non-mandatory items include core product releases planned for regular or fixed release. Custom solutions or other specialized work that varies on an ad hoc basis are referred to as projects that typically arise overnight and delivery is often needed within a short amount of time (pp. 5, lines 5-18). The applicant seems to correlates production to projects and does not limit the type of project planning systems employed either in the specification or claims other than to refer to products

having a generally fixed time schedule. In examining the claimed invention, the Examiner determined it was important to define mandatory, non-mandatory and ad hoc projects since a specific, exact definition of mandatory, non-mandatory and ad hoc project did not exist in the specification. The Examiner defined mandatory projects as precedence or critical projects, non-mandatory projects as no precedence or low precedence or non-critical or low priority projects, and ad hoc projects as new projects that are introduced during the execution of previously planned projects or multiple projects that arrive dynamically. The applicant argues the precedence or critical projects as used in Ash, refers to projects, which must be completed before the next project in a series is started/completed. The applicant further states the mandatory type project must be completed with a fixed schedule. The Examiner asserts the precedence or critical path method (CPM) of project planning refers to the longest path through a network of tasks and its time becomes the minimum expected completion time for the entire project. The "Critical" aspect of the CPM refers to project dependency and time. That is, the CPM defines the project schedule from start to finish in the order or precedence required. Specifically, the project time line of a critical path method will be a "generally fixed time schedule", and therefore, meets the scheduling requirement of the applicant as defined in the specification. The specification and claims do not restrict the types of project management available, specifically, excluding precedence feasible projects. Please see the 35 U.S.C. § 102(a) and 103(a) rejections below.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

8. **Claims 1, 2, 4-14, 16-25, and 27-33** are rejected under 35 U.S.C. 102(a) as being anticipated by Ash (Ash, Activity Scheduling in the Dynamic, Multi-Project Setting: Choosing Heuristics Through Deterministic Simulation, Proceedings of the 1999 Winter Simulation Conference, 1999, p. 937-941 [GOOGLE]). Please note that for examination purposes, the examiner has further defined mandatory projects as precedence or critical projects, non-mandatory projects as no precedence or low precedence or non-critical or low priority projects, and ad hoc projects as new projects that are introduced during the execution of previously planned projects or multiple projects that arrive dynamically. Ash discloses a project planning system and method for accommodating Ad Hoc requests with a fixed core development cycle comprising:

- **[Claim 1]** using a processing system for managing the planning and performance of multiple projects, the processing system performing the following steps: calculating a number of working hours available for performance of the multiple projects (p. 937, section 2 and p. 939, section 4, Ash teaches resources needed by the multiple projects are drawn from a common pool or set of resource pools where the number of resources is limited, that is the resources are limited to the point of being constrained. The pre-conditions for using deterministic simulations as an activity scheduling tool are: establishing databases for critical project resource pools, having the activity information for known projects loaded into a project management software program and installing the deterministic simulation algorithm into the project management software program. Inherently, the software program is executed on a processing system.);

- estimating the time required for completion of each project (p. 937, section 1, Ash teaches that tools to aid in project scheduling, once activity durations and precedence relationships are known, have existed for some time. The examiner interprets activity durations to be estimates of time required to complete each project.);

- based on said time estimates, allocating a first amount of time for performance of said mandatory projects, allocating a second amount of time for performance of said ad hoc projects, and allocating a third amount of time to be held in reserve, wherein the sum of the first, second, and third amounts of time is less than or equal to said available hours (p. 939-940, section 4, Ash teaches a deterministic simulation algorithm or program keeps a list of all the project activities that are currently precedence feasible and have not yet been initiated. It there are resources available to be assigned to start project activities, then a scheduling heuristic is used to prioritize the order in which precedence feasible activities will receive resources and be initiated. Once the priorities are established, resources are assigned to specific, precedence feasible activities and the activities are initiated. This is done until there are no more resources available. The heuristics used can be complicated combinations that relate to activity duration, activity slack, the number of resources or type of resources required, or even cost minimization or net present value maximization. The algorithm can be run whenever a significant change has occurred with the setting that might effect project activity scheduling. Such an event would certainly be the dynamic arrival of a new project. The examiner interprets that the resources are constrained, that is they cannot exceed a known or given amount, therefore when assigning the resources inherently the sum of assigned resources and unassigned resources will equal the total resource available. Resources are assigned to precedence feasible activities (relating to mandatory projects), new projects such as the dynamic arrival of new projects (Ad Hoc), and slack or unallocated time (time held in reserve) where the sum of all three cannot exceed the constrained resource total.) ;

- assigning tasks associated with the projects for performance (p. 939-940, section 4, Ash teaches that once the priorities are established, resources are assigned to specific, precedence feasible activities.);

- periodically inputting an actual time spent in performing the projects and a current status of each project (p. 939-940, section 4, Ash teaches the algorithm can be run whenever a significant change has occurred with the setting that might effect project activity scheduling. Such an event would certainly be the dynamic arrival of a new project or the situation where a critical activity finished well ahead of schedule, or more likely, when such an activity is now expected to finish well behind its original schedule. The examiner interprets actual time

is understood in order to determine whether or not an activity finished ahead or behind schedule.);

- based on the actual time spent and current status for each project, reestimating the time required for completing each project (p. 939-940, section 4, Ash teaches the algorithm can be run whenever a significant change has occurred with the setting that might effect project activity scheduling.);

- for each project type, determining if there exists a time imbalance between the allocated time for completion and the re-estimated time for completion (p. 939-940, section 4, Ash teaches the algorithm can be run whenever a significant change has occurred with the setting that might effect project activity scheduling. The simulation is run to determine if the change had caused a need to modify the managerial decision criteria currently in use for scheduling newly precedence feasible activities. Such simulations can be used in practice to set realistic milestones and project due dates for multiple projects at once.); and

- if there exists a time imbalance, reallocating the first, second, and third amounts of time to eliminate the time imbalance (p. 939-940, section 4, Ash teaches a deterministic simulation algorithm or program keeps a list of all the project activities that are currently precedence feasible and have not yet been initiated. It there are resources available to be assigned to start project activities, then a scheduling heuristic is used to prioritize the order in which precedence feasible activities will receive resources and be initiated. Once the priorities are established, resources are assigned to specific, precedence feasible activities and the activities are initiated. This is done until there are no more resources available. The heuristics used can be complicated combinations that relate to activity duration, activity slack, the number of resources or type of resources required, or even cost minimization or net present value maximization. The algorithm can be run whenever a significant change has occurred with the setting that might effect project activity scheduling. Such an event would certainly be the dynamic arrival of a new project. The examiner interprets that the resources are constrained, that is they cannot exceed a known or given amount, therefore when assigning the resources inherently the sum of assigned resources and unassigned resources will equal the total resource available. Resources are assigned to precedence feasible activities (relating to mandatory projects), new projects such as the dynamic arrival of new projects (Ad Hoc), and slack or unallocated time (time held in reserve) where the sum of all three cannot exceed the constrained resource total.).

- **[Claim 2]** wherein each project comprises one or more identified tasks, the estimating step including estimating the time required for completion of each of

said identified tasks and storing the estimates for each task in a database (p. 937, 939-940, section 1 and 4, Ash teaches that tools to aid in project scheduling, once activity durations and precedence relationships are known, have existed for some time. The pre-conditions for using deterministic simulation as an activity scheduling tool are: establishing databases for critical project resource pools, Having the activity information for known projects loaded into a project management software program, and installing the deterministic simulation algorithm into the project management software program. The examiner interprets the activity information to include activity duration.).

- **[Claim 4]** logging positive and negative time imbalances for future estimates (p. 939-940, section 4, Ash teaches the algorithm can be run whenever a significant change has occurred with the setting that might effect project activity scheduling. Such an event would be the situation where a critical activity finished well ahead of schedule, or more likely, when such an activity is now expected to finish well behind its original schedule. The simulation is run to determine if the change had caused a need to modify the managerial decision criteria currently in use for scheduling newly precedence feasible activities. Such simulations can be used in practice to set realistic milestones and project due dates for multiple projects at once.).

- **[Claim 5]** wherein the assigning step includes assigning to a worker tasks associated with mandatory projects and tasks associated with ad hoc projects (p. 939-940, section 4, Ash teaches that the resources are usually people and the databases have the activity information for known projects loaded into a project management software program. Once the priorities are established, resources are assigned to specific, precedence feasible activities. The algorithm can be run whenever a significant change has occurred within the setting that might effect project activity scheduling, such as the dynamic arrival of a new project. The examiner interprets precedence feasible activities as relating to mandatory projects and dynamic new projects as Ad Hoc projects.).

- **[Claim 6]** the calculating step includes determining a total supply of work hours and subtracting an estimated number of hours for nonproduction activities (p. 939-940, section 4, Ash teaches databases of project resources are kept updated and accessible to include characteristics associated with each specific resource. For human resources, such characteristics may include annual vacation schedule. If there are resources available to be assigned to start project activities, then the scheduling heuristic is used to prioritize the order in which precedence feasible activities will receive resources and be initiated. The examiner interprets the process of determining if resources are available as being the calculating step to determine a total supply of work hours and that vacation schedule relates to non-production activities.).

- **[Claim 7]** wherein a negative time imbalance is eliminated by decreasing the allocation for the time held in reserve (p. 938-940, section 3 and 4, Ash teaches decision rule, or heuristic, that is known to be effective toward minimizing project extension and maximizing resource utilization can be especially valuable. Deterministic simulation is an effective tool for choosing the heuristic that best fits the projects and activities under consideration and the critical performance criteria for a specific setting. The heuristic used in each simulation test can be quite simple or they can be complicated combinations that relate to activity duration, activity slack, the number of resources or type of resources required. A deterministic simulation algorithm can then be used to test a full set of heuristics with the project activities and resource levels for a specific situation. The algorithm can be run whenever a significant change has occurred with the setting that might effect project activity scheduling. Such an event would be the situation where a critical activity finished well ahead of schedule, or more likely, when such an activity is now expected to finish well behind its original schedule. The simulation is run to determine if the change had caused a need to modify the managerial decision criteria currently in use for scheduling newly precedence feasible activities. Such simulations can be used in practice to set realistic milestones and project due dates for multiple projects at once. The examiner interprets that since one of the goals of a heuristic rules is to minimize project extensions, then reducing or eliminating slack time to maintain the original project duration is proper.).

- **[Claim 8]** wherein a positive time imbalance is eliminated by increasing the allocation for the ad hoc projects (p. 938-940, section 3 and 4, Ash teaches decision rule, or heuristic, that is known to be effective toward minimizing project extension and maximizing resource utilization can be especially valuable. Deterministic simulation is an effective tool for choosing the heuristic that best fits the projects and activities under consideration and the critical performance criteria for a specific setting. The heuristic used in each simulation test can be quite simple or they can be complicated combinations that relate to activity duration, activity slack, the number of resources or type of resources required. A deterministic simulation algorithm can then be used to test a full set of heuristics with the project activities and resource levels for a specific situation. The algorithm can be run whenever a significant change has occurred with the setting that might effect project activity scheduling. Such an event would be the dynamic arrival of a new project or the situation where a critical activity finished well ahead of schedule. The examiner interprets that since one of the goals of a heuristic rules is to maximize resource allocation, then allocating positive time imbalance to the ad hoc projects is a proper option.).

- **[Claim 9]** wherein a positive time imbalance is eliminated by re-identifying one or more nonmandatory projects as mandatory projects and increasing the allocation for the mandatory projects (p. 939-940, section 4, Ash teaches that when an activity completes, it frees up resources, which can be used to start new activities that are waiting on the precedence feasible list. In addition, the completion of one activity may make one or more new activities precedence feasible. In which case the new activities are add to the precedence feasible list. The cycle repeats until there are no precedence feasible activities left.).

- **[Claim 10]** wherein a positive time imbalance is eliminated by increasing the allocation for the time held in reserve (p. 938-940, section 3 and 4, Ash teaches decision rule, or heuristic, that is known to be effective toward minimizing project extension and maximizing resource utilization can be especially valuable. Deterministic simulation is an effective tool for choosing the heuristic that best fits the projects and activities under consideration and the critical performance criteria for a specific setting. The heuristic used in each simulation test can be quite simple or they can be complicated combinations that relate to activity duration, activity slack, the number of resources or type of resources required. A deterministic simulation algorithm can then be used to test a full set of heuristics with the project activities and resource levels for a specific situation. The algorithm can be run whenever a significant change has occurred with the setting that might effect project activity scheduling. Such an event would be the dynamic arrival of a new project or the situation where a critical activity finished well ahead of schedule. The simulation could be run to determine if the change had caused a need to modify the managerial decision criteria currently in use for scheduling newly precedence feasible activities. The examiner interprets the change to be evaluated to determine if managerial decision criteria is to be changed to include the option of increasing the slack time for activities completed ahead of schedule.).

- **[Claim 11]** wherein a positive time imbalance is eliminated by establishing an earlier estimated completion date for one or more projects (p. 938-940, section 3 and 4, Ash teaches decision rule, or heuristic, that is known to be effective toward minimizing project extension and maximizing resource utilization can be especially valuable. Deterministic simulation is an effective tool for choosing the heuristic that best fits the projects and activities under consideration and the critical performance criteria for a specific setting. The heuristic used in each simulation test can be quite simple or they can be complicated combinations that relate to activity duration, activity slack, the number of resources or type of resources required. A deterministic simulation algorithm can then be used to test a full set of heuristics with the project activities and resource levels for a specific situation. The algorithm can be run whenever a significant change has occurred with the setting that might effect project activity scheduling. Such an event would be the dynamic arrival of a new project or the

situation where a critical activity finished well ahead of schedule. Such simulations can be used in practice to set realistic milestone and project due dates for multiple projects at once. The examiner interprets activities that finish well ahead of schedule and setting realistic milestones and project due dates to be estimating an earlier completion date.).

- **[Claim 12]** wherein: if there exists any negative time imbalance, reallocating the first, second, and third amounts of time to eliminate any negative time imbalance; and if there exists any positive time imbalance, performing one or both of reallocating the first, second, and third amounts of time to eliminate any positive time imbalance; and re-identifying one or more nonmandatory projects as mandatory (p. 938-940, section 3 and 4, Ash teaches decision rule, or heuristic, that is known to be effective toward minimizing project extension and maximizing resource utilization can be especially valuable. Deterministic simulation is an effective tool for choosing the heuristic that best fits the projects and activities under consideration and the critical performance criteria for a specific setting. When an activity completes, it frees up resources, which can be used to start new activities that are waiting on the precedence feasible list. In addition, the completion of one activity may make one or more new activities precedence feasible. In which case the new activities are add to the precedence feasible list. The cycle repeats until there are no precedence feasible activities left. The heuristic used in each simulation test can be quite simple or they can be complicated combinations that relate to activity duration, activity slack, the number of resources or type of resources required. A deterministic simulation algorithm can then be used to test a full set of heuristics with the project activities and resource levels for a specific situation. The algorithm can be run whenever a significant change has occurred with the setting that might effect project activity scheduling. Such an event would be the dynamic arrival of a new project or the situation where a critical activity finished well ahead of schedule, or more likely, when such an activity is now expected to finish well behind its original schedule. The simulation is run to determine if the change had caused a need to modify the managerial decision criteria currently in use for scheduling newly precedence feasible activities. Such simulations can be used in practice to set realistic milestones and project due dates for multiple projects at once.).

Claims 13, 14, 16-25, and 27-33 substantially recites the same limitations as that of claims 1, 2 and 4-12 with the distinction of the recited method being an information handling system and a planning system. Hence the same rejection for claims 1, 2 and 4-12 as applied above applies to claims 13, 14, 16-25, and 27-33.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. **Claims 3, 15 and 26** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ash (Ash, Activity Scheduling in the Dynamic, Multi-Project Setting: Choosing Heuristics Through Deterministic Simulation, Proceedings of the 1999 Winter Simulation Conference, 1999, p. 937-941 [GOOGLE]) in view of Bowers et al. (Bowers et al., A Practical Application of a Multi-Project Scheduling Heuristic, Production and Inventory Management Journal, Fourth Quarter 1996, p. 19-25 [PROQUEST]). Please note that for examination purposes, the examiner has further defined mandatory projects as precedence or critical projects, non-mandatory projects as no precedence or low precedence or non-critical or low priority projects, and ad hoc projects as new projects that are introduced during the execution of previously planned projects or multiple projects that arrive dynamically. As to **claim 3**, Ash discloses a project planning system and method for accommodating Ad Hoc requests with a fixed core development cycle but fails to teach the estimating step is based on previously performed tasks of a similar nature. Bowers et al. teach the development of an effective project scheduling methodology used at Tanner Companies, Inc., a manufacturer of ladies high quality fashion clothing. Resource types are identifies in Table 1. The model was used to

schedule Tanner's jackets department for a one-week period based on historical data. Since the required sewing time per garment remained fixed, the model schedule naturally decreased total garment delay or waiting time by the corresponding 63.33 hours in the week studied (p. 19, 20, and 23). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to include the historical data estimates of Bowers et al. with the teachings of Ash since Ash teaches that it is old and well known in the heuristic art to relate to activity duration where such simulations can be used in practice to set realistic milestone and project due dates for multiple projects at once. Confidence in a model or simulation program is paramount to management trusting the results and implementing the recommended actions. Using real time or historical data based on past performance enhances the credibility of the estimates or input data and allows for testing of the model or simulation. Therefore, the management's confidence in the model or simulation program is enhanced thus allowing the recommended actions to be implemented with confidence in the anticipated result.

Claims 15 and 26 substantially recites the same limitations as that of claim 3 with the distinction of the recited method being an information handling system and a planning system. Hence the same rejection for claims 3 as applied above applies to claims 15 and 26.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Heck whose telephone number is (571) 272-6730. The examiner can normally be reached Monday thru Friday between the hours of 8:00am - 4:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq R. Hafiz can be reached on (571) 273-6729.

Any response to this action should be mailed to:

Director of the United States Patent and Trademark Office
P.O. Box 1450
Alexandria, Virginia 22313-1450

Or faxed to:

(703) 872-9306	[Official communications; including After Final communications labeled "**Box AF**"]
(571) 273-6730	[Informal/Draft communication, labeled "**PROPOSED**" or "**DRAFT**"]

mch
19 April 2005

TARIQ R. HAFIZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600